

--27. The picture decoding and display unit in accordance with claim 1, wherein

said control means includes means for controlling said read means for reading pixel data again in a unit of a field every 5 prescribed number of said frames from said memory means in accordance with supplied pulldown conversion information, to produce the pixel data of said last field.

28. The picture decoding and display unit in accordance with claim 27, wherein said control means further includes:

means stopping said decoding processing by said decoding means for one field period being precedent to a display period for said 5 last field to be finally displayed when the pixel data of said last field is read from said memory means, said one field period being a time required for displaying pixel data of one field on said display unit.--

REMARKS

In response to the Office Action dated April 15, 1997, claims 2, 8 and 22 are amended, claims 14, 16 and 17 are cancelled, and claims 27 and 28 are added. Claims 1-3, 8-10, 21-23, 27 and 28 are now active in this application. Care has been exercised to avoid the introduction of new matter.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1-3, 14, 16, 17 and 21-23 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. It is the Examiner's position that independent claims 1, 14 and 21 are not readable on the second embodiment which is limited to the starting of decoding a B picture being delayed by one macro block line period. The rejection is believed moot as to claims 14, 16 and 17 as the claims are canceled. The rejection is respectfully traversed as to claims 1-3 and 21-23.

Applicants believe that the Examiner misinterprets the operation of embodiment 2. As shown in FIGS. 12 and 15, the time difference between the starting of decoding a picture (B2) and the start of reading a picture (B1) is the sum of one field period and one macro block line in the embodiment 2. There is no embodiment in which the time difference is only one macro block line. It should be understood that embodiment 2 is an improvement to the embodiment 1.

As asserted in the Response To Restriction Requirement, dated Jan 2, 1997, embodiment 1 requires the time difference between the starting of decoding a B picture and the starting of reading out a B picture to be one field period while the second embodiment further delays the starting of decoding a B picture by one macro

block line period; i.e. the delay is the sum of one field period and one macro block line.

The Examiner indicates that he understands that Applicants are entitled to a claim which has a breadth of scope broader than the specific scope of the elected embodiment; e.g. claim 1, as long as it is readable thereon (generic thereto). As claim 1 uses the word "comprising" in delineating the picture decoding and display unit, it is understood that the picture decoding and display unit may have other features and/or elements not recited in the claim. Consequently, it is proper for Applicants to recite (in claim 1) that there is substantially one field time difference between the decoding start timing and the reading out for B picture since this reads upon (has a broader scope than) embodiment 2 where the time difference between the starting of decoding a picture (B2) and the start of reading a picture (B1) is the sum of one field period and one macro block line in the embodiment 2. The narrower scope of time between the decoding start timing and the reading out for B picture of the sum of one field period and one macro block line falls within the broader scope of time between the decoding start timing and the reading out for B picture of substantially one field time difference.

Thus, contrary to the Examiner's assertion, claims 1 and 21 are readable on embodiment 2. Consequently, claims 1-3 and 21-23 recite the invention with the degree of precision and particularity

required by the statute and withdrawal of the rejection is respectfully solicited.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Claims 8-10 stand rejected under 35 U.S.C. §102(e) as being anticipated by Auld. The Examiner maintains that Auld discloses at column 9, "start decoding processing of pixel data of a subsequent frame supplied subsequently to a certain frame including a last field to be finally displayed in the certain frame in response to reading of the last field from the read means, the subsequent frame supplied immediately following a picture having the decoding processing thereon completed upon the reading of the last field."

Auld discloses the time difference of one field period between the decoding and the reading of frame pixel data for every picture. Auld does not suggest the distinction between B picture and I/P picture.

The video buffer of Auld is equivalent to Vbv delay parameter, and is included in a picture header, and represents a time period required for filling the channel buffer from an empty state to a predetermined amount of pixel/data prior to reading all pixel bits of a single picture from the channel buffer. Therefore, the delay time corresponds to a time for storing all the bits constructing a single picture. The video buffer verifier indicates a start of a picture, and Auld only discloses that detection of a picture header

starts the decoding of a picture field to be decoded next. Auld's video buffer verifier is used to store pixel data of a single picture into the channel buffer. Auld does not disclose or suggest the start of decoding in response to reading of decoded pixel data for display as required by the present claims.

NEW CLAIMS

New claims 27 and 28, depending from claim 1, are submitted. Claim 27 requires the control means to include means for controlling the read means for reading pixel data again in a unit of a field every prescribed number of the frames from the memory means in accordance with supplied pulldown conversion information, to produce the pixel data of the last field. Claims 28, depending from claim 27, requires the control means to include also means stopping the decoding processing by the decoding means for one field period being precedent to a display period for the last field to be finally displayed when the pixel data of the last field is read from the memory means, the one field period being a time required for displaying pixel data of one field on the display unit. This subject matter, when combined with the structure of independent claim 1, is not found in the applied prior art references. Thus, claims 27 and 28 are urged to be patentable for reasons in addition to the patentability of claim 1 from which they depend.

CONCLUSION

Accordingly, it is urged that the application, as now amended, overcomes the rejection of record and is in condition for allowance. Entry of the amendment and favorable reconsideration of this application, as amended, are respectfully requested. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-2237 and please credit any excess fees to such deposit account.

Respectfully submitted,

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